

U.S. Department of Commerce, Patent and Trademark Office



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

Application No.:	10/090,316
Filing Date:	March 1, 2002
First Named Inventor:	Peter G. Borden
Group Art Unit:	2877
Examiner Name:	Rosenberger, Richard A.
Confirmation No.:	5495
Attorney Docket No.:	BOX006 US

U.S. Patent Documents

*Examiner Initials		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
R	92	6,400,454	6/4/02	Noguchi et al.	356	237	

Foreign Patent Documents

							Translation	
		Document	Date	Country	Class	Subclass	Yes	No

Other Art (Including Author, Title, Date, Pertinent Pages, Etc.)

Examiner:

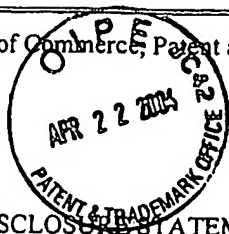
Richard Rosenberger

Date Considered:

6/1/04

* Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication with applicant.

U.S. Department of Commerce, Patent and Trademark Office



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

Application No.:	10/090,316
Filing Date:	March 1, 2002
First Named Inventor:	Peter G. Borden
Group Art Unit:	2877
Examiner Name:	Rosenberger, Richard A.
Confirmation No.:	5495
Attorney Docket No.:	BOX006 US

U.S. Patent Documents

*Examiner Initials		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
RM	1.	6,489,801	12/3/02	Borden et al.	324	766	
RM	2.	5,966,019	10/12/99	Borden	324	752	
RM	3.	5,377,006	12/27/94	Nakata	356	349	
RM	4.	6,323,951	11/27/01	Borden et al.	356	502	
RM	5.	6,426,644	7/30/02	Borden et al.	324	765	
RM	6.	5,042,951	8/27/91	Gold et al.	356	369	
RM	7.	5,159,412	10/27/92	Willenborg et al.	356	445	
RM	8.	5,181,080	1/19/93	Fanton et al.	356	381	
RM	9.	5,228,776	7/20/93	Smith et al.	374	5	
RM	10.	4,255,971	3/17/81	Rosencwaig	73	606	
RM	11.	4,579,463	4/1/86	Rosencwaig et al.	374	57	
RM	12.	4,632,561	12/30/86	Rosencwaig et al.	356	432	
RM	13.	6,049,220	4/11/00	Borden et al.	324	765	
RM	14.	6,483,594	11/19/02	Borden et al.	356	502	
RM	15.	5,652,716	7/29/97	Battersby	703	13	
RM	16.	5,761,082	6/2/98	Miura-Mattausch	703	14	
RM	17.	4,996,659	2/26/91	Yamaguchi et al.	714	736	
RM	18.	6,154,280	11/2/00	Borden	356	376	
RM	19.	6,054,868	4/25/00	Borden et al.	324	752	
RM	20.	5,883,518	3/16/99	Borden	324	752	
RM	21.	5,877,860	3/2/99	Borden	356	376	
RM	22.	5,978,074	11/2/99	Opsal et al.	356	72	
RM	23.	5,574,562	11/12/96	Fishman et al.	356	432	
RM	24.	6,169,601	1/2/01	Eremin et al.	356	239.8	
RM	25.	3,803,413	4/9/74	Vanzetti et al.	250	338	

Examiner:

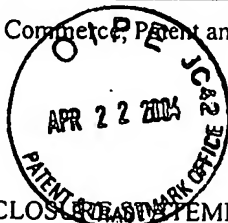
Richard A. Rosenberger

Date Considered:

6/1/04

* Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication with applicant.

U.S. Department of Commerce, Patent and Trademark Office



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

Application No.:	10/090,316
Filing Date:	March 1, 2002
First Named Inventor:	Peter G. Borden
Group Art Unit:	2877
Examiner Name:	Rosenberger, Richard A.
Confirmation No.:	5495
Attorney Docket No.:	BOX006 US

<i>m</i>	26.	2002/0126732A 1	9/12/02	Shakouri et al.	374	130	
<i>RA</i>	27.	6,330,361	12/11/01	Mitchell et al.	382	211	
<i>R</i>	28.	4,201,087	5/6/80	Akita et al.	73	339	
<i>R</i>	29.	6,178,020	1/23/01	Schultz et al.	359	107	
<i>RA</i>	30.	5,128,864	7/7/92	Waggener et al.	364	413.2	
<i>R</i>	31.	5,304,931	4/19/94	Flamig et al.	324	309	
<i>R</i>	32.	2003/0036231A 1	2/20/03	Bhattacharva et al.	438	201	
<i>R</i>	33.	2002/0186045A 1	12/12/02	Cox	326	41	
<i>R</i>	34.	2003/96436A1	5/22/03	Satya et al.	438	11	
<i>R</i>	35.	2003/0155927A 1	8/21/03	Pinto et al.	324	501	
<i>R</i>	36.	6,489,624	12/3/02	Ushio et al	250	559.3	
<i>R</i>	37.	6,486,965	11/26/02	Kim	356	626	
<i>R</i>	38.	5,741,614	4/21/98	McCoy et al.	430	30	
<i>RA</i>	39.	6,327,035	12/4/01	Li et al.	356	432	
<i>R</i>	40.	5,454,004	9/26/95	Leger	372	99	
<i>R</i>	41.	6,281,027	9/28/01	Wei et al.	438	14	
<i>R</i>	42.	4,975,141	12/4/90	Greco et al.	156	626	
<i>R</i>	43.	6,395,563	5/28/02	Eriguchi	438	7	
<i>R</i>	44.	4,950,990	8/21/90	Moulder	324	224	
<i>R</i>	45.	5,667,300	9/16/97	Mandelis et al.	374	43	
<i>R</i>	46.	4,521,118	06/00/85	Rosencwaig	374	5	
<i>R</i>	47.	4,710,030	12/1/87	Tauc et al.	356	445	
<i>R</i>	48.	5,074,669	12/1/91	Opsal	356	447	
<i>R</i>	49.	3,909,602	9/30/75	Micka	235	151.3	
<i>R</i>	50.	5,430,548	7/4/95	Hirio et al.	356	394	
<i>R</i>	51.	5,764,363	6/9/98	Ooki et al.	356	364	

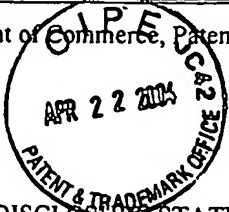
Examiner:

Richard Rosenberger

Date Considered:

6/1/04

* Examiner Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication with applicant.

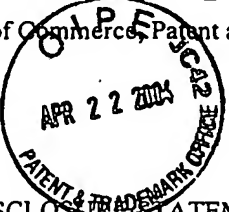
U.S. Department of Commerce, Patent and Trademark Office  INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Application No.:	10/090,316
	Filing Date:	March 1, 2002
	First Named Inventor:	Peter G. Borden
	Group Art Unit:	2877
	Examiner Name:	Rosenberger, Richard A.
	Confirmation No.:	5495
	Attorney Docket No.:	BOX006 US






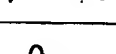
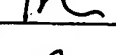
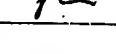
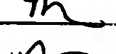
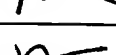
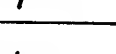
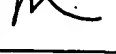

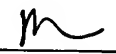



<i>RA</i>	52.	5,790,251	8/4/98	Hagiwara	356	351	
<i>RA</i>	53.	5,657,754	8/19/97	Rosencwaig	128	633	
<i>RA</i>	54.	4,634,290	1/6/87	Rosencwaig	374	5	
<i>RA</i>	55.	4,522,510	6/11/85	Rosencwaig	374	7	
<i>RA</i>	56.	4,243,327	1/6/81	Frosch et al.	356	432	
<i>RA</i>	57.	3,930,730	1/6/76	Laurens et al.	356	106	
<i>RA</i>	58.	4,455,741	6/26/84	Kolodner	29	574	
<i>RA</i>	59.	4,468,136	8/28/84	Murphy et al.	374	45	
<i>RA</i>	60.	4,466,748	8/21/84	Needham	374	129	
<i>RA</i>	61.	5,408,327	4/18/95	Geiler et al.	356	432	
<i>RA</i>	62.	4,795,260	1/3/89	Schuur et al.	356	400	
<i>RA</i>	63.	6,559,942	5/6/03	Sui et al.	356	369	
<i>RA</i>	64.	6,336,969	1/8/02	Yamaguchi et al.	117	7	
<i>RA</i>	65.	6,528,333	3/4/03	Jun et al.	438	16	
<i>RA</i>	66.	6,081,334	6/27/00	Grimbergen et al.	356	357	
<i>RA</i>	67.	3,462,602	8/16/67	Apple	250	83.3	
<i>RA</i>	68.	5,149,978	09/22/92	Opsal et al.	250	234	

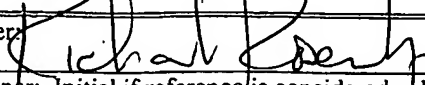
Foreign Patent Documents

							Translation	
		Document	Date	Country	Class	Subclass	Yes	No
<i>RA</i>	69.	97/08536	06.03.97	WO	G01N	21/00		
<i>RA</i>	70.	0 718 595	20.12.95	Europe	G01B			
<i>RA</i>	71.	2000009443A	1/1/2000	Japan	G01B			X
<i>RA</i>	72.	99/64880	16.12.1999	PCT	G01R	31/26		
<i>RA</i>	73.	05006929A	Jan-93	Japan	H01L	21/66		
<i>RA</i>	74.	00/07357	3/20/00	PCT	G01R	21/17		

Examiner: <i>Richard Rosenberger</i>	Date Considered: <i>6/1/04</i>
* Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication with applicant.	

U.S. Department of Commerce, Patent and Trademark Office  INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Application No.:	10/090,316
	Filing Date:	March 1, 2002
	First Named Inventor:	Peter G. Borden
	Group Art Unit:	2877
	Examiner Name:	Rosenberger, Richard A.
	Confirmation No.:	5495
	Attorney Docket No.:	BOX006 US

Other Art (Including Author, Title, Date, Pertinent Pages, Etc.)		
	75.	Jackson, "Classical Electrodynamics", John Wiley & Sons, Inc., (month unavailable), 1967, pp. 222-226
	76.	Rosencwaig et al. "Detection of Thermal Waves Through Optical Reflectance", Appl Phys. Lett. 46, June 1985, pp1013-1015
	77.	Rosencwaig, "Thermal-Wave Imaging", SCIENCE, Volume 218, No. 4569, Oct. 1982, pp.223-228
	78.	Opsal et al. "Thermal-Wave Detection and Thin-Film Thickness Measurements with Laser Beam Deflection", Applied Optics, Vol. 22, No. 20, Oct. 1983, pp. 3169-3176
	79.	Rosencwaig, "Thermal Wave Characterization and Inspection of Semiconductor Materials and Devices", Chapter 5 (pp. 97-135) of Photoacoustic and Thermal Wave Phenomena in Semiconductors, North Holland (month unavailable) 1987
	80.	"Process Monitoring System," Quantox Product Brochure, 3 pg, prior to June 10, 1998
	81.	J. Kolzer et al "Thermal Imaging and Measurement Techniques for Electronic Materials and Devices" Microelectronic Engineering, vol. 31, 1996 (month unknown) pages 251-270
	82.	C. Martinsons et al. "Recent progress in the measurement of thermal properties of hard coatings" Thin Solid Films, vol. 317, April 1998, 455-457.
	83.	S. Wolf and R. N. Tauber, "Silicon Processing For The VLSI Era", Volume 1, 1986, pages 388-399
	84.	Yaozhi Hu and Sing Pin Tay, "Spectroscopic ellipsometry investigation of nickel silicide formation by rapid thermal process", J. Vac. Sci. Technology, American Vacuum Soc. May/Jun 1998, pages 1820-1824
	85.	<u>Quality Today News</u> , article entitled "In-Line Metrology SEM System with 3D Imaging" dated January 10, 2000 and published at http://www.qualitytoday.com/Jan-00-news/011000-3.htm before April 4, 2001
	86.	Bristow, Thomas C. and Dag Lindquist, "Surface Measurements With A Non-Contact Nomarski-Profilng Instrument", Interferometric Metrology, SPIE vol. 816, August 1987, pages 106-110
	87.	Walter G. Driscoll and William Vaughan, "Handbook of Optics", 1978, pages 8-42, 8-43, 8-107, and 10-72 to 10-77
	88.	Charles Kittel, "Introduction to Solid State Physics", Fourth Edition, John Wiley & Sons, published prior to March 1, 2002, pages 262-264
	89.	Rolf E. Hummel, "Electronic Properties of Materials, An Introduction For Engineers", published prior to March 1, 2002, pages 137-145
	90.	H.S. Carslaw and J.C. Jaeger, "Conduction of Heat In Solids", Second Edition, published prior to March 1, 2002, pages 64-66
	91.	"Process Monitoring System", Quantox Product Brochure, 3 pages, published prior to March 1, 2002

Examiner: 	Date Considered: 6/1/04
* Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication with applicant.	